COLORADO RIVER RECOVERY PROGRAM Project No.: 29b
FY-2006/2007 PROPOSED SCOPE OF WORK for:
O&M Ouray

Lead Agency: Fish and Wildlife Service
Ouray National Fish Hatchery
Submitted by: Dave Irving
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Date: June 5, 2001

Revised: November 26, 2001, May 11, 2003, October 3, 2003, 28 April 2005

Category	Expected Funding Source
__ Ongoing project	xx Annual funds
xx Ongoing-revised project	__ Capital Funds
__ Requested project	__ Other
__ Unsolicited proposal	

I. Title of Proposal: Operation and Maintenance of Ouray National Fish Hatchery.

II. Relationship to2003 RIPRAP:

General Recovery Program Support Action Plan:

4.	Manage genetic integrity and augment or restore populations.
IV.A.	Genetics Management.
IV.A.4.	Secure and manage genetic stocks in refugia.
IV.A.4.a.	Razorback sucker
IV.A.4.a.(1)	Middle Green River.
IV.C.	Operate and maintain facilities.
IV.C.1.	Ouray National Fish Hatchery.

Green River Action Plan: Mainstem

IV.A.	Augment or restore populations as needed.
IV.A.1.	Develop State stocking plan for the four endangered fishes in the Green River.
IV.A.1.c.	Implement plan.

III. Study Background/Rationale and Hypotheses

This project is directly related to Section 2.4 IV. "Conserve Genetic Integrity and Augment or Restore Populations" in the Recovery Program Recovery Action Plan (USFWS 2003). One of five elements in the Recovery Program is "native fish stocking". The goal of this element is to produce sufficient captive-reared endangered fishes for conducting laboratory and field research and to develop brood stocks with genetic diversity similar to the wild stock used as founders (Williamson and Wydoski 1994). The need for captive-reared endangered fish and propagation facilities is identified in Wydoski (1994).

Razorback suckers have been propagated on the Ouray National Wildlife Refuge since 1987. The first facilities were established by the Vernal Colorado River Fish Project on the Ouray National Wildlife Refuge and was limited to 3, 0.1 acre ponds, 3, 0.2 acre ponds and two steel buildings housing 14, 4' incubation and rearing troughs, 6, 4' circular tanks, 15, 3' circular tanks and 10, 8' circular tanks. Because of the success shown with the small facility, a decision was made by the U.S. Fish and Wildlife Service (USFWS) to construct a permanent facility using "Stewardship", Drought Relief Funds, Recovery Funds and USFWS funds. The permanent facility was completed in September of 1998 and consists of a hatchery building housing 40, 4' fiberglass hatching troughs; 21, 3' circular fiberglass tanks; 25, 4' circular fiberglass tanks; 15, 8' circular fiberglass tanks; 24, 0.2 acre rearing ponds and 12, 0.5 acre brood (refugia) ponds. The hatchery facility has been used for spawning, incubation, fish tagging, fish health and pond inventory since 1998. Tentative plans for the hatchery are to overwinter approximately 15,000 2001 RBS. The 24, 0.2 acre ponds have been tested with stocking rates ranging from 2,500 to 25,000 swim-up fry per acre. The 0.5 acre ponds are used for broodstock development and maintenance.

Since the Fall of 1998 through the Spring of 2003, the Ouray facility has stocked Green River razorback sucker to wetlands along the Green River and to the Green River in northeastern Utah. Broodstock from 25 individual mated pairs are being maintained. Accurate records of lineage for all fish are be maintained so genetic and stocking plans can be addressed. Spawning and stocking is coordinated with the USFWS propagation coordinator to meet the integrated stocking plan (Nesler et al. 2003) and others within the recovery program.

IV. Study Goals, Objectives, End Product:

Goal: To operate a genetically sound captive propagation program for high priority endangered fish species for the RIP in the Upper Colorado River Basin in accordance with the Annual Propagation Operation Plan (Czapla 2003).

Objective: Operate and maintain propagation facilities that are needed to hold, rear, and produce captive-reared endangered fishes for the RIP in the Upper Colorado River Basin in accordance with the Annual Propagation Operation Plan.

End Product: Maintenance of endangered fish in refugia to prevent extinction; development of genetically sound broodstocks for production of young fish for stocking to stabilize or enhance wild stocks; production of captive-reared endangered fish for priority laboratory and field experiments.

V. Study area: Upper Colorado River Basin — Propagation facilities in Uintah Basin, Utah.

VI. Methods/Approach:

Conduct all tasks associated with the operation and maintenance of the Ouray National Fish Hatchery in accordance with the Genetic Management Plan (Williamson and Wydoski 1994; Czapla 1999) and the annual propagation plan (Czapla 2003).

VII. Task Description and Schedule:

All tasks are done annually

1. Develop and maintain captive razorback sucker broodstock.
2. Maintain genetic refugia of RBS held at the Ouray National Fish Hatchery.
3. Spawn razorback sucker broodstock and produce family lots for stocking in the Green River in Utah.
4. Over winter pond cultured YOY RBS intensively at the Ouray National Fish Hatchery.
5. Stock fry and 4-inch-long razorback suckers into grow-out ponds in spring.
6. Harvest, PIT tag, and stock 14,895 12-inch-long razorback sucker into the Green River in the following amounts: middle Green River (9,930) and Lower Green River (4,965).

VIII. FY-2006 Work

Budget: FY2006

Salaries	Cost
GS-14 Project Leader ($56.07/hr x 8 hrs/day x 130 days)	$58,313
GS-12 Assist. Project Leader ($94,052/year)	$94,052
GS-9 Admin Assist. ($31.18/hr x 8 hrs/day x 130 days)	$32,427
GS-11 Fisheries Biologist ($35.51/hr x 8 hrs/day x 130 days)	$36,930
GS-7 Fisheries Tech ($46,784/year)	$46,784
WG-9 Maintenance Worker ($64,629/year)	$64,629
GS-5 Biolgical Techs ($19.91/hr x 8 hrs/day x 60 days)	$9,557

Subtotal	$342,692

Operational Costs	Cost
Electricity	$42,308
Propane	$27,000
Fish Food	$25,000
Chemicals and Fertilizer	$6,000
Travel and Training	$5,000
Supplies	$7,000
Vehicles	$6,000
Miscellaneous	$1,000

Subtotal	$119,308

Total	$462,000

U.S. Bureau of Reclamation Well field work	$45,000

Budget FY2007

Salaries	Cost
GS-14 Project Leader ($59.82/hr x 8 hrs/day x 130 days)	$62,213
GS-12 Assist. Project Leader ($99,974/year)	$99,974
GS-9 Admin Assist. ($32.20/hr x 8 hrs/day x 130 days)	$32,427
GS-11 Fisheries Biologist ($37.81/hr x 8 hrs/day x 130 days)	$39,322
GS-7 Fisheries Tech ($49,921/year)	$49,921
WG-9 Maintenance Worker ($66,736/year)	$66,736
GS-5 Biological Techs ($20.56/hr x 8 hrs/day x 60 days)	$9,869

Subtotal	$360,462

Operational Costs	Cost
Electricity	$43,577
Propane	$27,810
Fish Food	$25,750
Chemicals and Fertilizer	$6,180
Travel and Training	$5,150
Vehicles	$6,180
Supplies	$8,240

Subtotal	$122,887

Total	$483,349

U.S. Bureau of Reclamation Well field work	$5,000

IX. Budget Summary:

	Hatchery	O&M Well
FY2006	$462,000	$45,000
FY2007	$483,349	$ 5,000

X. Reviewers:

Various Service and Recovery Program staff.

XI. References:

Czapla, T.E. 1999. Genetics Management Plan. Upper Colorado River Endangered Fish Recovery Program, Denver, Colorado.

Czapla, T.E. 2003. Propagation Activities, 2003. Upper Colorado River Endangered Fish Recovery Program, Denver, Colorado.

Nesler, T.P., K. Christopherson, J.M. Hudson, C.W. McAda, F. Pfeifer, T.E. Czapla. 2003. An integrated stocking plan for razorback sucker, bonytail, and Colorado pikeminnow for the Upper Colorado River Endangered Fish Recovery Program. Program Office, Denver, CO.

USFWS (U. S. Fish and Wildlife Service). 2003. Recovery implementation program for endangered fish species in the upper Colorado River basin. U. S. Department of the Interior, Fish and Wildlife Service, Region 6, Denver, Colorado.

Williamson, J. H., and R. S. Wydoski. 1994. Genetics management guidelines. Recovery implementation program for endangered fish species in the upper Colorado River basin. U. S. Department of the Interior, Fish and Wildlife Service, Region 6, Denver, Colorado.

Wydoski, R. S. 1994. Coordinated hatchery facility plan: need for captive-reared endangered fish and propagation facilities. Recovery implementation program for endangered fish species in the upper Colorado River basin. U. S. Department of the Interior, Fish and Wildlife Service, Region 6, Denver, Colorado.